BOOSTBOX™ H2

Operating Instructions and Owner's Manual

Drivers - Please review this information prior to operating BoostBox H2

Contact your maintenance support team with any questions or concerns

Your signature below signifies you have read and understand the information in this Operating Instructions and Owner's Manual

Make/Model: **BoostBox H2 – BBH212V6L120V**

Serial Number: _____

Installation Date: _____

Operator's Signature: _____

BOOSTBOX H2™

You, the driver, are the most critical factor in assuring the success of BoostBox H2's addition to your fleet's operations. While the system is designed to be maintenance free, there remain a few things, critical to the operations, that we and your employer, need your assistance with. Your efforts will ensure smooth performance of the system, maximum system uptime, and will play an important role in helping you and your company realize remarkable fuel savings.

From a driving perspective, you will enjoy the added torque and performance that will help you power over hills and steep inclines, and the extra range realized from a tank of fuel.

1. ***Fill the system with DISTILLED WATER, and refill as required.***
2. ***ALWAYS check the DISTILLED WATER for purity prior to filling, even if you have used this brand before.***
3. ***Avoid freezing the water reservoir by using the built-in AC plug & heater.***
4. ***Do not "floor" your throttle pedal! Because of the added torque being produced, you will experience greater response from your engine at lower RPMs. Excessive pedal pressure is not required, and will actually reduce your fuel efficiency potential.***
5. ***Monitor your BoostBox H2 display for possible error codes and always make sure that BoostBox H2 is "running", to get maximum fuel savings.***

Thank You!

About Our System

Thank you for your purchase of BoostBox H2 from RSS-H2, LLC. Our system is designed to significantly improve the fuel efficiency of your engine. You will also notice a considerable improvement in torque, allowing you take some grades and hills as much as 1-2 gears higher.

BoostBox H2 creates Hydrogen and Oxygen gasses, on-demand, by splitting **DISTILLED WATER** into its two basic elements - H2 (hydrogen) and O2 (oxygen).

We add the Hydrogen and Oxygen to the air intake, where they are mixed with air, and serve as a catalyst, to help available diesel fuel burn more efficiently, and completely. In doing so, our system provides you with a number of significant benefits:

- Improves engine combustion performance - burns more of the diesel
- Increases engine torque
- Improves fuel economy and MPG - extend your operating range between fill ups
- Reduces harmful emissions
- A cleaner engine/operations with fewer DPF regeneration cycles and filter cleaning
- High probability for lower maintenance expense and downtime

No H2 or O2 gasses are ever stored on your tractor. When you turn off the engine, BoostBox H2 shuts off, automatically, and stops its production.

The BoostBox H2 system is designed for trouble-free operations, with little maintenance of the equipment required. If BoostBox should ever fail to operate properly, your vehicle will operate on diesel, only - “on the fly”. No action is required by you for this to take place.

Operations

Distilled Water Only - Water Purity of 5ppm, or Less

Open the outer cover of the BoostBox H2 system, and locate the fill tube on the side of the inner enclosure. Remove the cap to the fill tube. **Prior to filling BoostBox H2, test the water purity of the DISTILLED WATER**, using the TDS Water Tester provided with the system. The tester is located in the pouch, adjacent to the BoostBox H2 fill tube.

Water Tester

- **CHECK YOUR WATER PURITY EACH TIME YOU FILL, AND WITH EVERY BOTTLE OF DISTILLED WATER**.
- Acceptable water purity, or Total Dissolved Solids (TDS), should be in a range of **0-5 ppm**.
- If the water purity reading is greater than 5 ppm, DO NOT RE-FILL THE BOOSTBOX H2 UNIT with this bottle of DISTILLED WATER. Test another bottle for acceptable purity. If the water purity reading is 5ppm, or less, then fill the reservoir with **DISTILLED WATER**, and add water to the reservoir as required.

- **Operating Range is Approximately 1 gallon per 1,500 Miles**
- **BoostBox H2 Maximum Water Capacity is 2.4 Gallons**

IMPORTANT!!

USE ONLY DISTILLED WATER FOR OPERATING YOUR BOOSTBOX H2 SYSTEM. USE OF CONTAMINATED WATER, MINERALIZED WATER, REGULAR TAP WATER, OR ANY ADDITIVES, WILL CAUSE AN ERROR, **AND WILL VOID THE BOOSTBOX H2 WARRANTY**.

WATER PURITY SHOULD BE IN THE RANGE OF 0-5 PPM.

Operations - Continued

To Start BoostBox H2

When the tractor is turned on, the BoostBox H2 system is designed to automatically start – you might see the words “auto-start”. If the system stops working for any reason, the image to the right will be displayed on the on-dash display. To start BoostBox H2, you have two options. Either tap the "start button" on the display, or it will restart automatically next time you turn on your vehicle.

Once BoostBox H2 is started, the display will change. It will show you the current water level and other data from its operations and will say “Running”

Display Unit Error Messages and Troubleshooting

Low Water Level

- *Top off tank with DISTILLED WATER - test water first!*
- *Monitor your water level gauge, and fill before it gets too low*

Water Purity Out of Range (Indicates Contaminated Water

- *Drain Water tank by tilting fill spout downward, drain water, and refill with DISTILLED WATER. You may need to repeat this step, to clean and purge the impurities from the system if Water Purity error remains after refilling/flushing.*
- *Once Water Purity error ‘clears’, press ‘restart on your display.*

On Board Temperature Out of Range

- *Shut off unit and contact your maintenance support team*

Cell Current Below Minimum Level

- *Check power cable connections & voltage supply*

Cell Current Above Maximum Level

- *Shut off unit and contact your maintenance support team*

Unit Warming Up

- *Unit is below standard operating range. Will take longer for system to turn on, automatically, and assume normal operations*

Display Unit Error Messages and Troubleshooting - Continued

High Water Temperature

- *Check cooling system tank, pump, hoses, and connections for possible coolant leak*

H2 (Hydrogen) Pressure Out of Range

- *Leave unit turned on. Will take longer to turn on, automatically, and assume normal operations.*

O2 (Oxygen) Pressure Out of Range

- *Leave unit turned on. Will take longer to turn on, automatically, and assume normal operations*

On Board Temperature Sensor Fail

- *Shut off unit and contact your support team*

Water Temperature Sensor Fail

- *Shut off unit and contact your support team*

Cell Temperature Sensor Fail

- *Shut off unit and contact your support team*

Communications Failure

- *Shut off unit and contact your support team*

Water Level Sensor Fail

- *Shut off unit and contact your support team*

Voltage Below Limit

- *Check supply voltage*

Cell Temp Over Limit

- *Check cooling system tank, pump, hoses, and connection for possible coolant leak. Either make necessary repair or contact your support team.*

Protect Water From Freezing

Take all necessary precautions to protect the water from freezing. BoostBox H2 equipment will not operate, or provide you with fuel savings, if the unit is frozen.

BoostBox H2 is designed to maintain an ambient temperature, using a circulating pump, heat exchanger, and coolant. When the unit is turned off, the BoostBox H2 water reservoir would be susceptible to freezing if temperatures are low enough. Any cold temperature impact would not be immediate - the BoostBox H2 enclosure is insulated.

Troubleshooting - Frozen Water Reservoir

Should the BoostBox H2 water reservoir freeze solid, it will completely thaw during normal operations, the next time you start your engine. It may take 4-6 hours, during which time, you will NOT receive the benefit of BoostBox H2 fuel savings. Be diligent and use your AC heater whenever stopping for extended periods during sub-freezing weather.

➢ Block Heater Integration - Use Block Heater Plug to Activate Our Heater

The BoostBox H2 is equipped with a built-in heater for connection to AC power, and is integrated with your block heater plug. Plugging in the block heater will also turn on the BoostBox H2 supplemental heater. This will protect the unit from freezing when the BoostBox H2 and host vehicle are not in operation, and temperatures are below freezing.

Drivers - Protect Your Equipment!

Use your AC block heater for freeze protection. One plug protects both the engine and BoostBox H2.

BOOSTBOX H2™

Warranty Information

NEVER remove the rivets and the cover of the INNER enclosure of the BoostBox H2 unit. Doing so will void your warranty. There is no equipment inside this unit that requires servicing.

It is the Customer's responsibility to maintain the cooling system, which operates external to the BoostBox H2 enclosure(s). Your responsibilities include hoses, pump, connections, heat exchanger, and coolant. Monitor cooling system for leaks and service/repair as required.

THIS EQUIPMENT IS A HIGH PERFORMANCE PRODUCT. USE OF THIS EQUIPMENT IS AT YOUR OWN RISK.

DO NOT USE THIS PRODUCT UNTIL YOU HAVE CAREFULLY READ THE FOLLOWING AGREEMENT AND INFORMATION.

This information sets forth instructions for the use of the BoostBox H2 system, herein referred to as EQUIPMENT. The installation of this EQUIPMENT indicates that the BUYER (Customer) has read and understands this manual. Installing and using this EQUIPMENT also indicates that the BUYER has read and understands the Terms and Conditions for Sales and Services , including the "Disclaimer of Liability" and "Limitation of Warranty" and "Other Conditions Notice" contained within those Terms and Conditions, and accepts all terms and conditions.

DISCLAIMER OF LIABILITY

BoostBox H2 and its successors, distributors, jobbers, and dealers (hereafter SELLER) shall in no way be responsible for the improper use or service of the EQUIPMENT or components. **Unauthorized removal of the enclosed cover, alterations, modifications, adjustments or repairs made to equipment, or use of the equipment not in compliance with this manual, will automatically void any guarantees and/or warranties. In addition, use of any water, other than DISTILLED WATER, with a purity of 5 ppm, or less, will also void the product warranty.** The SELLER assumes no liability regarding the improper installation or misapplication of its merchandise. It is the BUYERS responsibility to check for proper installation and if in doubt promptly contact the SELLER or representative. BUYER must use only authorized, trained and certified personnel for equipment installation.

THE INSTALLATION OF THIS SYSTEM INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THESE TERMS, AND WILL PROVIDE PROPER EQUIPMENT MAINTENANCE AS PER GUARANTEE AND WARRANTY POLICIES.

THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS, THERETO.

Important Safety Information

All hydrogen and oxygen lines from the BoostBox H2 generator to the engine air intake should NOT be routed through the passenger compartment, or in any area that would allow Hydrogen or Oxygen to leak into the passenger compartment, under any circumstance.

Periodically check all Hydrogen and Oxygen line connections from the BoostBox H2 generator to the engine's air intake to make sure they are tight. Tighten or repair all leaking joints.

Please note that BoostBox H2 does not store Hydrogen or Oxygen on board your tractor under any circumstances. The gasses created by the system are sent directly to the air intake, where they are mixed with air and fuel, and are burned during combustion. When you turn off the engine, BoostBox H2 shuts off, automatically, and stops its production.

You also have the option of turning off BoostBox H2 while the engine is running, for select maintenance procedures, using the on-dash display.

BOOSTBOX H2™

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